

=> d his

(FILE 'HOME' ENTERED AT 12:57:00 ON 14 MAR 2005)

FILE 'EPFULL, FRFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL,  
USPAT2' ENTERED AT 12:57:11 ON 14 MAR 2005

E DELUCA H/IN

L1 489 S E3-E12

L2 440 S L1 AND (VITAMIN(W)D)

FILE 'USPATFULL, USPAT2' ENTERED AT 13:00:05 ON 14 MAR 2005

L3 274 S L1

FILE 'CAPLUS' ENTERED AT 13:02:00 ON 14 MAR 2005

L4 1 S US4338312/PN

SELECT L4 1 RN

L5 3916 S E1-E2

FILE 'REGISTRY' ENTERED AT 13:02:42 ON 14 MAR 2005

L6 1 S 19356-17-3/RN

SET NOTICE 1 DISPLAY

SET NOTICE LOGIN DISPLAY

FILE 'REGISTRY' ENTERED AT 13:05:07 ON 14 MAR 2005

L7 1 S 41294-56-8/RN

SET NOTICE 1 DISPLAY

SET NOTICE LOGIN DISPLAY

FILE 'CAPLUS' ENTERED AT 13:07:23 ON 14 MAR 2005

L8 3916 S L6 OR L7

L9 2 S L8 AND DELUCA

FILE 'USPATFULL, USPAT2' ENTERED AT 13:09:05 ON 14 MAR 2005

L10 238 S L3 AND (PHOSPHORUS OR P)

L11 235 S L10 AND (VITAMIN(W)(D OR D3))

L12 211 S L6 OR L7

L13 59 S DELUCA AND L12

L14 31 S L13 AND PHOSPHORUS

=> D L7 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y  
THE ESTIMATED COST FOR THIS REQUEST IS 6.15 U.S. DOLLARS  
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 41294-56-8 REGISTRY

CN 9,10-Secocholesta-5,7,10(19)-triene-1,3-diol, (1 $\alpha$ ,3 $\beta$ ,5Z,7E) -  
(9CI) (CA INDEX NAME)

OTHER NAMES:

CN  $\alpha$ -Calcidol

CN 1-Hydroxycholecalciferol

CN 1-Hydroxyvitamin D3

CN 1 $\alpha$ (OH)D3

CN 1 $\alpha$ -Hydroxycholecalciferol

CN 1 $\alpha$ -Hydroxyvitamin D3

CN Alfacalcidol

CN Alfarol

CN Alpha D3

CN Alphacalcidol

CN Alpharol

CN Bondiol

CN EinsAlpha

CN Etalpa

CN Oxydevit

CN Un Alfa

CN Un Alpha

FS STEREOSEARCH

DR 125324-15-4, 41461-06-7, 43157-29-5, 43217-90-9

MF C27 H44 O2

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,  
CHEMINFORMRX, CHEMLIST, CIN, CSChem, DDFU, DRUGU, EMBASE, IFICDB,  
IFIPAT, IFIUDB, IMSCoSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA,  
MEDLINE, MRCK\*, NAPRALERT, PHAR, PROMT, PS, RTECS\*, SPECINFO, TOXCENTER,  
USAN, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);  
PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
reagent); USES (Uses)

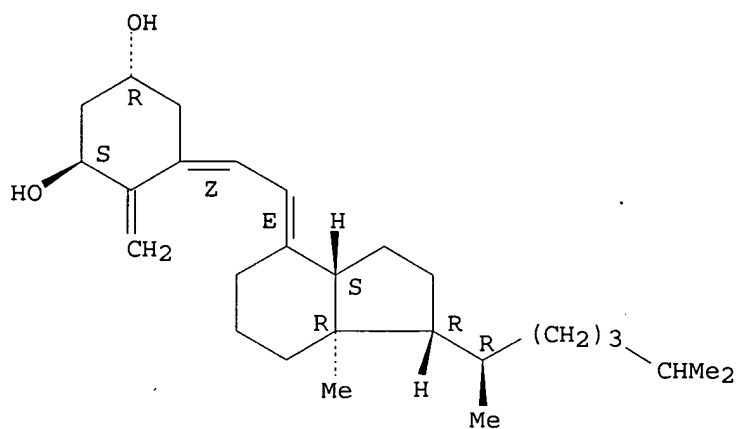
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological  
study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological  
study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP  
(Preparation); PROC (Process); PRP (Properties); RACT (Reactant or  
reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological  
study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP  
(Preparation); PROC (Process); USES (Uses)

Absolute stereochemistry. Rotation (+).

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1168 REFERENCES IN FILE CA (1907 TO DATE)

23 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1169 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 19356-17-3 REGISTRY

CN 9,10-Secocholesta-5,7,10(19)-triene-3,25-diol, (3 $\beta$ ,5Z,7E) - (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 9,10-Secocholesta-5,7,10(19)-triene-3 $\beta$ ,25-diol (8CI)

OTHER NAMES:

CN 25-HCC

CN 25-Hydroxycholecalciferol

CN 25-Hydroxyvitamin D

CN 25-Hydroxyvitamin D3

CN 5,6-cis-25-Hydroxyvitamin D3

CN Calcidiol

CN Calcifediol

CN Calderol

CN Cholecalciferol, 25-hydroxy-

CN Dedrogyl

CN Didrogyl

CN Hidroferol

CN Ro 8-8892

CN U 32070E

FS STEREOSEARCH

DR 25631-40-7

MF C27 H44 O2

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHM, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, PS, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA Caplus document type: Conference; Dissertation; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

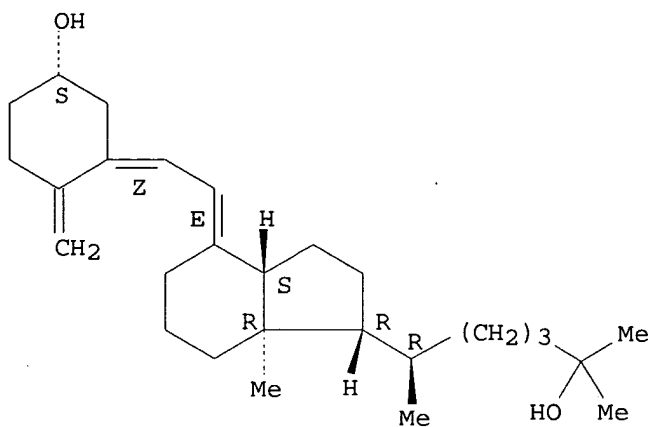
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

Absolute stereochemistry.

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3012 REFERENCES IN FILE CA (1907 TO DATE)

44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3012 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 16 or 17  
L12 211 L6 OR L7

=> s DELUCA and 112  
L13 59 DELUCA AND L12

=> s 113 and PHOSPHORUS  
L14 31 L13 AND PHOSPHORUS

=> d ibib 1-31

L14 ANSWER 1 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2003:294829 USPATFULL  
TITLE: Dietary calcium as a supplement to vitamin D compound  
treatment of multiple sclerosis  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, UNITED STATES  
Cantorna, Margheritea T., State College, PA, UNITED STATES  
Humpal-Winter, Jean, Poynette, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003207847	A1	20031106
APPLICATION INFO.:	US 2003-405653	A1	20030402 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-231726, filed on 30 Aug 2002, ABANDONED Continuation of Ser. No. US 1999-349528, filed on 8 Jul 1999, GRANTED, Pat. No. US 6479474		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	QUARLES & BRADY LLP, 411 E. WISCONSIN AVENUE, SUITE 2040, MILWAUKEE, WI, 53202-4497		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Page(s)		
LINE COUNT:	723		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L14 ANSWER 2 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2003:234856 USPATFULL  
TITLE: Vitamin D derivatives with carbo- or heterocyclic  
substituents at C-25, process for their production,  
intermediate products and use for the production of  
pharmaceutical agents  
INVENTOR(S): Steinmeyer, Andreas, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
Kirsch, Gerald, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Neef, Gunter, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Schwarz, Katika, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Thieroff-Ekerdt, Ruth, Berlin, GERMANY, FEDERAL  
REPUBLIC OF  
Wiesinger, Herbert, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
Haberey, Martin, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Fahnrich, Marianne, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Berlin, GERMANY, FEDERAL  
REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6613920	B1	20030902
APPLICATION INFO.:	US 2000-695091		20001025 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 180018		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19619036	19960430

DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Qazi, Sabiha  
LEGAL REPRESENTATIVE: Millen, White, Zelano, Branigan, P.C.  
NUMBER OF CLAIMS: 26  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)  
LINE COUNT: 3329  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2003:203387 USPATFULL  
TITLE: Vitamin D derivatives with carbo- or heterocyclic substituents at C-25, a process for their production, intermediate products and their use for producing medicaments  
INVENTOR(S): Steinmeyer, Andreas, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Kirsch, Gerald, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Neef, Gunter, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Schwarz, Katica, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Thieroff-Ekerdt, Ruth, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Wiesinger, Herbert, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Haberey, Martin, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Fahnrich, Marianne, Berlin, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Berlin, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6600058	B1	20030729
APPLICATION INFO.:	US 2000-695137		20001025 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 180018		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19619036	19960430
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Qazi, Sabiha	
LEGAL REPRESENTATIVE:	Millen, White, Zelano & Branigan, P.C.	
NUMBER OF CLAIMS:	27	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	3186	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2003:30924 USPATFULL  
TITLE: Dietary calcium as a supplement to vitamin D compound treatment of multiple sclerosis  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, UNITED STATES  
Cantorna, Margheritea T., State College, PA, UNITED STATES  
Humpal-Winter, Jean, Poynette, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003022873	A1	20030130
APPLICATION INFO.:	US 2002-231726	A1	20020830 (-10.)
RELATED APPLN. INFO.:	Continuation of Ser. No. US-1999-349528		filed on 8 Jul 1999, GRANTED, Pat. No. US 6479474

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: QUARLES & BRADY LLP, 411 E. WISCONSIN AVENUE, SUITE

2040, MILWAUKEE, WI, 53202-4497

NUMBER OF CLAIMS: 21  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Page(s)  
LINE COUNT: 725  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 5 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2003:17936 USPATFULL  
TITLE: Increasing **phosphorus** uptake from the gut of dairy cows by supplementing lalpha-hydroxylated vitamin D compounds  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, UNITED STATES  
Jorgenson, Neal A., Middleton, WI, UNITED STATES  
Satter, Larry D., Madison, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003013696	A1	20030116
APPLICATION INFO.:	US 2001-815573	A1	20010322 (9) <
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Thomas M. Wozny, ANDRUS, SCEALES, STARKE & SAWALL, LLP, Suite 1100, 100 East Wisconsin Avenue, Milwaukee, WI, 53202-4178		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
LINE COUNT:	550		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

*Instant Application  
invention*

L14 ANSWER 6 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2002:92818 USPATFULL  
TITLE: NEW VITAMIN D DERIVATIVES WITH CARBO-OR HETEROCYCLIC SUBSTITUENTS AT C-25, A PROCESS FOR THEIR PRODUCTION, INTERMEDIATE PRODUCTS AND THEIR USE FOR PRODUCING MEDICAMENTS  
INVENTOR(S): STEINMEYER, ANDREAS, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
KIRSCH, GERALD, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
NEFF, GUNTER, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
SCHWARZ, KATICA, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
THIEROFF-EKERDT, RUTH, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
WIESINGER, HERBERT, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
HABEREY, MARTIN, BERLIN, GERMANY, FEDERAL REPUBLIC OF  
FAHNRIK, MARIANNE, BERLIN, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002049344	A1	20020425
	US 6642218	B2	20031104
APPLICATION INFO.:	US 1998-180018	A1	19981211 (9)
	WO 1997-EP2013		19970421

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19619036	19960430
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3651	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

*X*



L14 ANSWER 7 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2002:27465 USPATFULL  
TITLE: DIETARY CALCIUM AS A SUPPLEMENT TO VITAMIN D COMPOUND  
TREATMENT OF MULTIPLE SCLEROSIS  
INVENTOR(S): DELUCA, HECTOR F., DEERFIELD, WI, UNITED STATES  
CANTORNA, MARGHERITE T., MIDDLETON, WI, UNITED STATES  
HUMPAL-WINTER, JEAN, POYNETTE, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002016313	A1	20020207
	US 6479474	B2	20021112
APPLICATION INFO.:	US 1999-349528	A1	19990708 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	QUARLES & BRADY LLP, 411 E. WISCONSIN AVENUE, SUITE 2040, MILWAUKEE, WI, 53202-4497		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Page(s)		
LINE COUNT:	648		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 8 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2001:158268 USPATFULL  
TITLE: Treatment of t-cell immunodeficiencies with vitamin D  
compounds  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States  
Yang, Shouli, Memphis, TN, United States  
Prahl, Jean M., Madison, WI, United States  
Smith, Connie M., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6291444	B1	20010918
APPLICATION INFO.:	US 2000-603041		20000626 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-159616, filed on 24 Sep 1998, now abandoned Division of Ser. No. US 1996-648898, filed on 12 Nov 1996, now patented, Pat. No. US 5880114 Continuation-in-part of Ser. No. US 1995-413915, filed on 30 Mar 1995, now abandoned Continuation of Ser. No. US 1993-78555, filed on 10 Aug 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Criares, Theodore J.		
LEGAL REPRESENTATIVE:	Andrus, Sceales, Starke & Sawall, LLP		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	891		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 9 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2001:97905 USPATFULL  
TITLE: Methods for preparation and use of 1 $\alpha$ ,24(S)-  
dihydroxy vitamin D2  
INVENTOR(S): Horst, Ronald L., Ames, IA, United States  
Bishop, Charles W., Madison, WI, United States  
Jones, Glenville, Kingston, Canada  
Koszewski, Nicholas J., Lexington, KY, United States  
Knutson, Joyce C., Madison, WI, United States  
Moriarty, Robert M., Oak Park, IL, United States  
Reinhardt, Timothy, Ames, IA, United States  
Penmasta, Raju, Westmount, IL, United States  
Strugnelli, Stephen, Madison, WI, United States

Guo, Liang, Bolingbrook, IL, United States  
Singhal, Sanjay K., Morton Grove, IL, United States  
Zhao, Lei, Lamont, IL, United States  
Bone Care International, Inc., Middleton, WI, United States (U.S. corporation)

PATENT ASSIGNEE(S):

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6251883	B1	20010626
APPLICATION INFO.:	US 1998-211991		19981214 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-515801, filed on 16 Aug 1995, now abandoned Continuation of Ser. No. US 1994-275641, filed on 14 Jul 1994, now abandoned Continuation of Ser. No. US 1992-940246, filed on 28 Aug 1992, now abandoned Continuation-in-part of Ser. No. US 1991-637867, filed on 8 Jan 1991, now abandoned Continuation-in-part of Ser. No. WO 1992-US313, filed on 7 Jan 1992		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Jones, Dwayne O.		
LEGAL REPRESENTATIVE:	Michael Best & Friedrich LLP, Welch, Teresa J.		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	1235		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 2000:15331 USPATFULL  
TITLE: Animal feed containing carboxylic acids  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States  
Baker, David H., Champaign, IL, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6022555		20000208
APPLICATION INFO.:	US 1997-924607		19970905 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Levy, Neil S.		
LEGAL REPRESENTATIVE:	Andrus, Sceales, Starke & Sawall		
NUMBER OF CLAIMS:	64		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1186		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 1999:128181 USPATFULL  
TITLE: Methods for improving meat tenderness  
INVENTOR(S): Owens, Fredric N., Stillwater, OK, United States  
Gill, Donald R., Stillwater, OK, United States  
Morgan, J. Brad, Stillwater, OK, United States  
PATENT ASSIGNEE(S): The Board of Regents for Oklahoma State University, Stillwater, OK, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968565		19991019
APPLICATION INFO.:	US 1998-121585		19980723 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-53769P	19970725 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	

PRIMARY EXAMINER: Sayala, Chihaya D.  
LEGAL REPRESENTATIVE: Fellers, Snider, Blankenship, Bailey & Tippens, P.C.  
NUMBER OF CLAIMS: 13  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
LINE COUNT: 957  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 12 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 1999:92343 USPATFULL  
TITLE: Low **phosphorus** animal feed containing  
1 $\alpha$ -hydroxylated vitamin D compounds and method of  
preparing  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States  
Baker, David H., Champaign, IL, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)  
Board of Trustees of the University of Illinois,  
Urbana, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5935624		19990810
APPLICATION INFO.:	US 1997-969295		19971113 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-757448, filed on 27 Nov 1996, now abandoned which is a continuation of Ser. No. US 1995-452847, filed on 30 May 1995, now abandoned which is a division of Ser. No. US 1995-383952, filed on 6 Feb 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Corbin, Arthur L.		
LEGAL REPRESENTATIVE:	Andrus, Sceales, Starke & Sawall		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
LINE COUNT:	803		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ODP ?

L14 ANSWER 13 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 1999:30796 USPATFULL  
TITLE: Treatment of immune deficiency with vitamin D compounds  
INVENTOR(S): Deluca, Hector F., Deerfield, WI, United States  
Yang, Shouli, Memphis, TN, United States  
Prahl, Jean M., Madison, WI, United States  
Smith, Connie M., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5880114		19990309
APPLICATION INFO.:	US 1996-648898		19961112 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-413915, filed on 30 Mar 1995, now abandoned which is a continuation of Ser. No. US 1993-78555, filed on 10 Aug 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Criares, Theodore J.		
LEGAL REPRESENTATIVE:	Andrus, Sceales, Starke & Sawall		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	912		

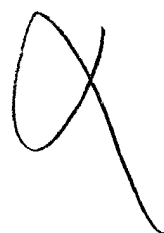
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

X

L14 ANSWER 14 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 91:60804 USPATFULL

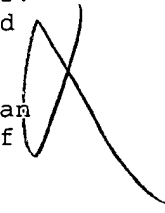
TITLE: Process for the preparation of 1 alpha,25-dihydroxylated vitamin D.sub.2 and related compounds  
INVENTOR(S): DeLuca, Hector F., 5130 Minocqua Crescent, Madison, WI, United States 53705  
Schnoes, Heinrich K., 1806 Summit Ave., Madison, WI, United States 53705  
Sicinski, Rafal R., University of Warsaw, Department of Chemistry, 02-093, Warsaw, Pasteura 1, Poland  
Tanaka, Yoko, 72 Paxwood Rd., Delmar, NY, United States 12054

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5036061		19910730
APPLICATION INFO.:	US 1989-442483		19891122 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1986-862075, filed on 12 May 1986, now abandoned which is a continuation-in-part of Ser. No. US 1983-492863, filed on 9 May 1983, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ivy, C. Warren		
ASSISTANT EXAMINER:	Northington-Davis, Zinna		
LEGAL REPRESENTATIVE:	Andrus, Sceales, Starke & Sawall		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	786		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			



L14 ANSWER 15 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 87:39631 USPATFULL  
TITLE: 1- $\alpha$ -hydroxy vitamin D compounds and process for preparing same  
INVENTOR(S): Hesse, Robert H., 49 Amherst St., Cambridge, MA, United States 02142  
Rizzardo, Ezzio, 14, Hopegood Place, Garran, ACT 2605, Australia  
Barton, Derek H. R., 47 Onslow Square, London S.W. 7, England

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4670190		19870602
APPLICATION INFO.:	US 1984-657270		19841003 (6)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1984-571738, filed on 18 Jan 1984, now abandoned which is a continuation of Ser. No. US 1982-348778, filed on 16 Feb 1982, now abandoned which is a continuation of Ser. No. US 1980-210330, filed on 25 Nov 1980, now abandoned which is a continuation of Ser. No. US 1980-125108, filed on 27 Feb 1980, now abandoned which is a continuation of Ser. No. US 1978-922659, filed on 7 Jul 1978, now abandoned which is a continuation of Ser. No. US 1977-817825, filed on 21 Jul 1977, now abandoned which is a continuation of Ser. No. US 1975-538259, filed on 3 Jan 1975, now abandoned which is a continuation-in-part of Ser. No. US 1973-362339, filed on 21 May 1973, now patented, Pat. No. US 3901928 which is a continuation-in-part of Ser. No. US 1973-322462, filed on 10 Jan 1973, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bacon & Thomas		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1004		



CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 16 OF 31 USPATFULL on STN

ACCESSION NUMBER: 86:28190 USPATFULL  
TITLE: Method for treating metabolic bone disease in mammals  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4588716		19860513
APPLICATION INFO.:	US 1985-691824		19850116 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1984-607327, filed on 4 May 1984, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	482		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 17 OF 31 USPATFULL on STN

ACCESSION NUMBER: 83:685 USPATFULL  
TITLE: Process for preparing 23,25-dihydroxyvitamin D.sub.3  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Wichman, Joseph K., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4367177		19830104
APPLICATION INFO.:	US 1981-254570		19810415 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	219		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 18 OF 31 USPATFULL on STN

ACCESSION NUMBER: 82:29191 USPATFULL  
TITLE: Administration of biologically active vitamin D.sub.3  
and vitamin D.sub.2 materials  
INVENTOR(S): Holick, Michael F., Sudbury, MA, United States  
Uskokovic, Milan R., Upper Montclair, NJ, United States  
PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4335120		19820615
APPLICATION INFO.:	US 1980-203291		19801103 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1980-137673, filed on 4 Apr 1980, now abandoned which is a division of Ser. No. US 1979-22393, filed on 21 Mar 1979, now patented, Pat. No. US 4230701, issued on 28 Oct 1980		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		

LEGAL REPRESENTATIVE: Saxe, Jon S., Gould, George M., Epstein, William H.  
NUMBER OF CLAIMS: 27  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)  
LINE COUNT: 970  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 19 OF 31 USPATFULL on STN

ACCESSION NUMBER: 81:24669 USPATFULL  
TITLE: Process for preparing 1-hydroxylated vitamin D compounds from 5,6-trans-vitamin D compounds  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Hamer, David E., Madison, WI, United States  
Paaren, Herbert E., Verona, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4265822		19810505
APPLICATION INFO.:	US 1979-73840		19790910 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
LINE COUNT:	312		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 20 OF 31 USPATFULL on STN

ACCESSION NUMBER: 81:21884 USPATFULL  
TITLE: Fluorovitamin D compounds and processes for their preparation  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4263214		19810421
APPLICATION INFO.:	US 1979-64209		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now patented, Pat. No. US 4188345		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
LINE COUNT:	962		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 21 OF 31 USPATFULL on STN

ACCESSION NUMBER: 80:57726 USPATFULL  
TITLE: Process for preparing 1 $\alpha$ -hydroxyvitamin D compounds from 1 $\alpha$ -hydroxy-3,5-cyclovitamin D compounds  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Hamer, David E., Madison, WI, United States  
Paaren, Herbert E., Verona, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4234495		19801118
APPLICATION INFO.:	US 1979-73839		19790910 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	287		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 22 OF 31 USPATFULL on STN  
 ACCESSION NUMBER: 80:53849 USPATFULL  
 TITLE: Administration of biologically active vitamin D.sub.3  
 and vitamin D.sub.2 materials  
 INVENTOR(S): Holick, Michael F., Sudbury, MA, United States  
 Uskokovic, Milan R., Upper Montclair, NJ, United States  
 PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4230701		19801028
APPLICATION INFO.:	US 1979-22393		19790321 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		
LEGAL REPRESENTATIVE:	Saxe, Jon S., Leon, Bernard S., Epstein, William H.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	839		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 23 OF 31 USPATFULL on STN  
 ACCESSION NUMBER: 80:53775 USPATFULL  
 TITLE: Fluorovitamin D compounds and processes for their  
 preparation  
 INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
 Schnoes, Heinrich K., Madison, WI, United States  
 Napoli, Jr., Joseph L., Madison, WI, United States  
 Onisko, Bruce L., Madison, WI, United States  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4230627		19801028
APPLICATION INFO.:	US 1979-64213		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
LINE COUNT:	955		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 24 OF 31 USPATFULL on STN  
 ACCESSION NUMBER: 80:52478 USPATFULL  
 TITLE: Fluorovitamin D compounds and processes for their  
 preparation  
 INVENTOR(S): DeLuca, Hector F., Madison, WI, United States

Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

PATENT ASSIGNEE(S):

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4229358		19801021
APPLICATION INFO.:	US 1979-64211		19790803 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
LINE COUNT:	960		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 25 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 80:52477 USPATFULL  
TITLE: Fluorovitamin D compounds and processes for their preparation  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4229357		19801021
APPLICATION INFO.:	US 1979-64210		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
LINE COUNT:	960		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 26 OF 31 USPATFULL on STN  
ACCESSION NUMBER: 80:49749 USPATFULL  
TITLE: Fluorovitamin D compounds and processes for their preparation  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4226787		19801007
APPLICATION INFO.:	US 1979-64212		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		



NUMBER OF CLAIMS: 4  
EXEMPLARY CLAIM: 1  
LINE COUNT: 942  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 27 OF 31 USPATFULL on STN

ACCESSION NUMBER: 80:46956 USPATFULL  
TITLE: Fluorovitamin D compounds and processes for their preparation  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4224230		19800923
APPLICATION INFO.:	US 1979-64208		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1978-928279, filed on 26 Jul 1978, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
LINE COUNT:	949		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 28 OF 31 USPATFULL on STN

ACCESSION NUMBER: 80:7944 USPATFULL  
TITLE: Fluorovitamin D compounds and processes for their preparation  
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States  
Schnoes, Heinrich K., Madison, WI, United States  
Napoli, Jr., Joseph L., Madison, WI, United States  
Onisko, Bruce L., Madison, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4188345		19800212
APPLICATION INFO.:	US 1978-928279		19780726 (5)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Schwartz, Gerald A.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
LINE COUNT:	973		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 29 OF 31 USPATFULL on STN

ACCESSION NUMBER: 75:43702 USPATFULL  
TITLE: 1 $\alpha$ ,3 $\beta$ -Dihydroxy steroid-5-enes method of preparing same and their use for preparing 1 $\alpha$ -hydroxy-25-hydrogen vitamin D compounds  
INVENTOR(S): Hesse, Robert Henry, 49 Amherst St., Cambridge, MA, United States 02142  
Rizzardo, Ezzio, 49 Amherst St., Cambridge, MA, United States 02142  
Barton, Derek Harold Richard, 47 Onslow Sq., London S.W. 7, England

NUMBER	KIND	DATE
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PATENT INFORMATION: US 3901928 19750826  
APPLICATION INFO.: US 1973-362339 19730521 (5)  
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1973-322462, filed  
on 10 Jan 1973, now abandoned  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Roberts, Elbert L.  
LEGAL REPRESENTATIVE: Bacon & Thomas  
NUMBER OF CLAIMS: 6  
EXEMPLARY CLAIM: 1  
LINE COUNT: 718  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 30 OF 31 USPAT2 on STN  
ACCESSION NUMBER: 2002:92818 USPAT2  
TITLE: Vitamin D derivatives with carbo- or heterocyclic  
substituents at C-25, a process for their production,  
intermediate products and their use for producing  
medicaments  
INVENTOR(S): Steinmeyer, Andreas, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
Kirsch, Gerald, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Neef, Gunter, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Schwarz, Katica, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Thieroff-Ekerdt, Ruth, Berlin, GERMANY, FEDERAL  
REPUBLIC OF  
Wiesinger, Herbert, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
Haberey, Martin, Berlin, GERMANY, FEDERAL REPUBLIC OF  
Fahnrich, Marianne, Berlin, GERMANY, FEDERAL REPUBLIC  
OF  
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Berlin, GERMANY, FEDERAL  
REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6642218	B2	20031104
	WO 9741096		19971106
APPLICATION INFO.:	US 1998-180018		19981211 (9)
	WO 1997-EP2013		19970421

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19619036	19960430
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Qazi, Sabiha	
LEGAL REPRESENTATIVE:	Millen, White, Zelano, Branigan, P.C.	
NUMBER OF CLAIMS:	28	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	3234	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 31 OF 31 USPAT2 on STN  
ACCESSION NUMBER: 2002:27465 USPAT2  
TITLE: Dietary calcium as a supplement to vitamin D compound  
treatment of multiple sclerosis  
INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States  
Cantorna, Margherite T., Middleton, WI, United States  
Humpal-Winter, Jean, Poynett, WI, United States  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6479474	B2	20021112

APPLICATION INFO.: US 1999-349528 19990708 (9)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Criares, Theodore J.  
ASSISTANT EXAMINER: Kim, Jennifer  
LEGAL REPRESENTATIVE: Quarles & Brady LLP  
NUMBER OF CLAIMS: 2  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 694  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.